

Amendments to the Claims

The current listing of the claims replaces all previous amendments and listings of the claims.

1. (Canceled)

2. (Currently Amended) A fuel assembly ~~to be applied to a nuclear reactor,~~
comprising:
a bottom nozzle configured to be disposed on a lower plate of a nuclear reactor;
a top nozzle including a hold down spring configured to urge the bottom nozzle
toward the lower plate;
a plurality of control rod guide tubes configured to guide control rods, passed through
the top nozzle toward the lower plate; and
a thimble screw which is disposed in a locked to the bottom nozzle so as to extend
from a bottom surface side, has at a seat with a rotation preventive pin to connect the control
rod guide tubes to the bottom nozzle, the thimble screw comprising

a drain hole extending through in a longitudinal direction from a spot facing
hole of a the seat to a distal end, is configured such that a and configured to receive coolant is
supplied into the drain hole from the spot facing hole toward the distal end while the nuclear
reactor operates and to receive coolant supplied into the drain hole from a the distal end side
toward the spot facing hole during a scram mode, and is locked to the bottom nozzle at the
seat with a rotation preventive pin, and is provided with

a coolant collision portion[[,]] at a drain hole side of the rotation preventing pin[[,]]
against which the coolant flowing from the distal end side toward the spot facing hole
collides in order to increase the pressure drop of the coolant during the scram mode.

3. (Canceled)

4. (Original) A fuel assembly according to claim 2, wherein a collision surface of the coolant collision portion against which the coolant collides forms a flat surface.

5. (Canceled)

6. (Currently Amended) A fuel assembly ~~to be applied to a nuclear reactor,~~
comprising:

a bottom nozzle configured to be disposed on a lower plate of a nuclear reactor;

a top nozzle including a hold down spring configured to urge the bottom nozzle toward the lower plate;

a plurality of control rod guide tubes configured to guide control rods, passed through the top nozzle toward the lower plate; and

a thimble screw which is disposed in a locked to the bottom nozzle to extend from a bottom surface side, has a first drain hole and second at a seat with a rotation preventive pin to connect the control rod guide tubes to the bottom nozzle, the thimble screw comprising

a drain hole extending through in a longitudinal direction from a spot facing hole of a the seat to a distal end, is configured such that a and configured to receive coolant is supplied into the first drain hole and second drain hole from the spot facing hole toward a the distal end side while the nuclear reactor operates and to receive coolant supplied into the second drain hole and first drain hole from the distal end side toward the spot facing hole during a scram mode, and is locked to the bottom nozzle at the seat with a rotation preventive pin, the first the drain hole having an opening area smaller than an opening area of the spot facing hole and smaller than an opening area of the second drain hole at the distal end a large inner diameter portion at a distal end side and a small inner diameter portion at a seat side, the spot facing hole disposed on the seat side.

7. (Currently Amended) A fuel assembly according to claim 6, wherein the thimble screw comprises a coolant collision portion, ~~at a first drain hole side of the rotation~~

~~preventive pin~~ provided at the seat, against which the coolant flowing from the distal end ~~side~~ toward the spot facing hole collides ~~in order~~ to increase pressure drop of the coolant during the scram mode.

8. (Canceled)

9. (Original) A fuel assembly according to claim 7, wherein a collision surface of the coolant collision portion against which the coolant collides forms a flat surface.

10.-22. (Canceled)